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## YBCO coated conductor gets go-ahead

*by Michael Kelly, Propulsion Directorate*

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — The yttrium barium copper oxide coated conductor, a critical electrical power component developed for defense applications, recently received approval for full development under Title III of the Defense Production Act.

Title III authorizes the use of federal funds to correct industrial resource shortfalls and to promote critical technology items and materials, which are essential to the national defense. Title III will make it possible to establish manufacturing facilities at one or two industrial locations to provide YBCO coated conductors and provide initial conductors for demonstration projects and applications.

Scientists in Air Force Research Laboratory's Propulsion Directorate are further developing production capabilities.

The departments of Energy and Defense are joining forces on the combined manufacturing program for the conductor, a novel flat wire with a significantly higher current carrying capacity over copper wire.

Pete Aldridge, under secretary of defense, approved the conductor-manufacturing program, which sets aside \$12 million in federal funds that will combine with \$12 million in industrial funding to ensure availability of the conductor.

The YBCO conductor is the next generation high temperature superconducting wire necessary for the development of Air Force-directed energy weapons and the Navy's Electric Warships and Combat Vehicles programs. @